Index of Claims

| Annlic | ation/Cor | atrol | No |
|--------|-----------|-------|------|
| Thhur | | 100 | INO. |

10/519,311 Examiner

Bruce D. Hissong, Ph.D.

Applicant(s)/Patent under Reexamination

MARTIN ET AL.

Art Unit

1646

| 1 | Rejected |
|---|----------|
| = | Allowed |

| - | (Through numeral) Cancelled |
|---|--------------------------------|
| ÷ | Restricted |

| N | Non-Elected |
|---|--------------|
| 1 | Interference |

| A | Appeal |
|---|----------|
| 0 | Objected |

| The state of the | Cla | im | | | | | Date | е | | | | | Cla | im | | | - | [| Date | — е |
|--|----------------------|----|--|--------------|--|--|----------|--|--|--|--|----|----------|----|----------|--|--|--|----------|--------|
| 3 52 3 53 4 55 5 55 6 55 6 55 8 55 9 59 10 60 11 62 13 63 14 64 45 65 16 66 17 67 40 68 19 69 20 70 21 71 22 72 23 73 24 74 25 76 27 77 28 79 33 80 31 81 32 82 33 83 34 84 35 85 36 86 37 88 33 88 34 84 35 85 36 86 <tr< td=""><td></td><td></td><td>2/8/01</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr<> | | | 2/8/01 | | | | | | | | | | | | | | | | | |
| 3 52 3 53 4 55 5 55 6 55 6 55 8 55 9 59 10 60 11 62 13 63 14 64 45 65 16 66 17 67 40 68 19 69 20 70 21 71 22 72 23 73 24 74 25 76 27 77 28 79 33 80 31 81 32 82 33 83 34 84 35 85 36 86 37 88 33 88 34 84 35 85 36 86 <tr< td=""><td></td><td>1</td><td></td><td>-</td><td>-</td><td>┝</td><td>┝</td><td>┝</td><td></td><td>\vdash</td><td>_</td><td></td><td></td><td>51</td><td>_</td><td>_</td><td>┝</td><td>-</td><td>-</td><td>H</td></tr<> | | 1 | | - | - | ┝ | ┝ | ┝ | | \vdash | _ | | | 51 | _ | _ | ┝ | - | - | H |
| 3 | | | | \vdash | \vdash | ╅ | | | | - | - | | | 52 | | \vdash | | \vdash | | T |
| 5 6 5 56 56 57 58 9 10 10 10 10 10 10 10 10 10 10 10 10 10 | | 3 | سا | | | | | | | | | li | | 53 | | | | | | T |
| 6 56 57 8 9 59 10 60 11 61 61 62 13 63 14 64 46 65 16 66 17 67 48 68 19 69 20 70 21 71 22 72 23 73 24 74 25 75 26 76 27 77 28 78 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 90 40 90 41 91 42 92 43 93 | | | \prod | | | | | | | | | | | | | | | | | Γ |
| 10 | | 5 | | | | | | | | _ | | | | 55 | | | | | | |
| 8 9 10 60 10 60 60 11 61 62 13 63 63 14 64 64 45 65 66 16 67 67 48 69 70 21 71 72 23 73 74 25 75 75 26 76 77 28 78 79 30 80 81 31 31 81 32 33 83 33 84 84 35 85 86 37 87 87 38 88 88 39 90 90 41 91 91 42 92 93 43 94 94 44 94 94 45 96 96 47 97 97 48 98 | | | <u> </u> | _ | _ | <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u></u> | | | 56 | | <u> </u> | | | <u> </u> | L |
| 9 10 60 61 61 62 62 63 64 44 64 66 65 65 66 66 67 70 70 70 70 70 70 70 70 70 70 70 70 70 | | | _ | L | \perp | _ | L | _ | <u>L</u> | _ | | | | 57 | _ | | | <u> </u> | _ | L |
| 10 | | 8 | <u>٧</u> | | <u> </u> | <u> </u> | ㄴ | ļ | | | | | | 58 | | _ | <u> </u> | _ | _ | L |
| 11 12 61 62 13 64 64 45 65 66 16 66 67 48 69 69 20 70 70 21 71 72 23 73 74 25 75 76 26 76 77 28 78 79 30 80 81 31 81 82 33 83 83 34 84 84 35 86 86 37 87 88 39 89 90 41 91 91 42 92 93 43 94 94 44 96 96 47 97 98 | | | 1 | _ | _ | <u> </u> | <u> </u> | _ | <u> </u> | <u> </u> | <u> </u> | | | | _ | _ | _ | | _ | Ļ |
| 12 13 62 63 14 65 63 64 45 65 66 65 16 67 68 69 19 68 69 70 21 72 73 72 23 73 74 74 25 76 77 77 28 79 78 79 30 80 81 83 31 31 81 82 33 83 84 85 36 37 88 85 36 37 87 88 39 40 90 90 41 91 91 92 43 44 94 94 45 95 96 97 48 98 98 | | | 1 | | _ | _ | | <u> </u> | - | _ | _ | | | | | | | _ | - | L |
| 13 14 63 64 16 65 66 67 17 68 69 68 19 70 71 72 21 72 73 74 22 73 74 74 25 76 77 78 29 70 77 78 29 70 77 78 30 80 81 82 31 81 82 82 33 84 84 84 35 36 86 87 38 88 88 89 40 90 90 90 41 91 92 93 44 94 94 94 45 95 96 97 46 96 97 97 48 98 98 | | | H | | <u> </u> | ├ | ⊢ | <u> </u> | ├- | <u> </u> | <u> </u> | | | 61 | _ | | | _ | | ┞ |
| 14 45 16 65 17 66 17 67 48 69 19 70 21 71 22 73 23 74 25 75 26 76 27 77 28 78 29 80 30 80 31 81 32 82 33 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 94 44 94 45 95 46 96 47 97 48 98 | | 12 | Н | - | \vdash | ⊢ | ⊢ | ├ | - | \vdash | | | | | | _ | | _ | - | ╀ |
| 46 65 16 66 17 66 40 68 19 70 20 70 21 71 22 72 23 73 24 74 25 75 26 76 27 77 28 78 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 94 44 94 45 96 47 97 48 98 | | 14 | 1 | - | | | | | | ├ | ├— | | | 64 | | <u> </u> | | | | ╀ |
| 16 66 17 68 19 69 20 70 21 71 22 72 23 73 24 74 25 75 26 76 27 77 28 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 94 44 94 45 95 46 96 47 97 48 98 | \vdash | 45 | ~ | \vdash | - | | ├ | ├ | | - | | | | 65 | \vdash | | | | - | ╁ |
| 17 67 48 68 19 70 21 71 22 72 23 73 24 74 25 75 26 76 27 77 28 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 | | | | - | ├─ | ├─ | ┢ | | ├ | - | | | | | | \vdash | - | | | ╁ |
| 48 68 19 70 20 70 21 71 22 73 23 73 24 74 25 75 26 76 27 77 28 78 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 | | 17 | | | \vdash | - | ┢ | \vdash | ┢ | ┝ | ┝ | | | 67 | | - | - | _ | - | t |
| 19 69 20 70 21 71 22 72 23 74 24 74 25 75 26 76 27 77 28 78 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 93 44 94 45 96 47 97 48 98 | | | 2 | ╌ | | \vdash | ┢ | ╁ | _ | H | | | | | - | | - | - | | t |
| 20 70 21 71 22 72 23 74 24 74 25 75 26 76 27 77 28 78 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 | | | | | | - | ┢ | - | - | - | \vdash | | | | _ | | | - | | ╁ |
| 21 71 22 73 23 73 24 74 25 75 26 76 27 77 28 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 90 41 91 42 92 43 94 44 94 45 95 46 96 47 97 48 98 | | 20 | 1 | - | | | \vdash | 1 | | | _ | i | | 70 | - | \vdash | - | - | - | H |
| 22 72 23 74 25 75 26 76 27 77 28 78 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 90 40 90 41 91 42 92 43 94 44 94 45 95 46 96 47 97 48 98 | | 21 | 1 | ┢ | Т | \vdash | Т | - | 一 | | - | | | | | - | - | - | | t |
| 23 73 24 74 25 75 26 76 27 77 28 78 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 89 40 90 41 91 42 92 43 94 44 94 45 95 46 96 47 97 48 98 | | 22 | 1 | ⇈ | ┪ | \vdash | ⇈ | | 1 | _ | 一 | | | | | | | | | t |
| 24 74 25 75 26 76 27 77 28 78 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 94 44 94 45 95 46 96 47 97 48 98 | | 23 | 1 | _ | | | | | _ | | | | | 73 | | | _ | | _ | t |
| 25 75 26 76 27 77 28 78 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 94 44 94 45 95 46 96 47 97 48 98 | | 24 | | - | | _ | Ι | _ | | - | | 1 | | | | | - | - | | t |
| 26 76 27 77 28 78 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 | | 25 | \top | Т | | _ | Г | | | _ | <u> </u> | 1 | | 75 | - | | | ļ — | | T |
| 27 28 77 28 78 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 | | 26 | t | - | П | | Г | | Г | \vdash | Ī | | | 76 | | _ | | | | T |
| 28 78 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 90 41 91 42 92 43 93 44 94 45 96 47 97 48 98 | | 27 | \vdash | Π | | \Box | П | П | | | | 1 | | | | | | | | T |
| 29 79 30 80 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 | | 28 | | | | | | | Г | | | | | 78 | | | | | | Γ |
| 31 81 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 | | 29 | | | | | | | | | | | | 79 | | | | | | |
| 32 82 33 83 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 | | | | | | | | | | | | | | 80 | | | | | | Γ |
| 33 83 34 84 35 85 36 86 37 87 38 87 39 88 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 | | 31 | L | L | | <u> </u> | | | | | | | | 81 | | | | | | L |
| 34 84 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 | | 32 | | L | <u></u> | _ | | _ | | L | | | | | | | | | <u> </u> | L |
| 35 85 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 | \square | | | _ | L. | _ | <u> </u> | _ | | <u> </u> | _ | | | | _ | | | _ | | L |
| 36 86 37 87 38 88 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 | | | | <u> </u> | | _ | _ | | <u> </u> | _ | <u> </u> | | | | _ | | | L_ | | L |
| 37 87 38 88 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 | | 35 | | <u> </u> | | <u> </u> | | <u> </u> | ļ | | ļ | | | 85 | _ | _ | | | | L |
| 38 88 39 90 40 91 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 | | | <u> </u> | <u> </u> | | <u> </u> | <u> </u> | - | ļ | ļ | <u> </u> | | | | | | | _ | | Ļ |
| 39 89 40 90 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 | \vdash | | | | | | <u> </u> | - | - | | | | <u> </u> | | <u> </u> | | <u> </u> | — | | 1- |
| 40 90 91 91 92 43 93 93 94 94 94 95 95 96 96 96 97 97 98 98 | $\vdash\vdash\vdash$ | | | - | | - | - | | <u> </u> | | | | | | - | — | - | - | - | ╀ |
| 41 91 42 92 43 93 44 94 45 95 46 96 47 97 48 98 | $\vdash \vdash$ | | | | | | ├- | | - | | | | | | \vdash | | — | | | + |
| 42 92 43 93 44 94 45 95 46 96 47 97 48 98 | | | \vdash | \vdash | \vdash | \vdash | \vdash | ╁ | \vdash | \vdash | ╢ | | | | \vdash | <u> </u> | | \vdash | \vdash | ╁ |
| 43 93 94 94 95 95 96 96 97 97 97 98 98 98 | \vdash | 42 | - | | \vdash | ├ | ├- | ├ | - | — | | | | 91 | \vdash | \vdash | ╢ | - | \vdash | + |
| 44 94 45 95 46 96 47 97 48 98 | | | \vdash | \vdash | \vdash | ┼─ | \vdash | \vdash | \vdash | \vdash | | | | | - | \vdash | ┢ | \vdash | | H |
| 45 95 96 96 97 97 97 98 98 | | | | \vdash | | \vdash | ╁ | | 1 | - | - | | | 94 | | | ╁ | - | - | t |
| 46 96 97 97 97 98 98 | \vdash | | 1 | - | | | 1 | | \vdash | | - | | | | | - | | \vdash | \vdash | t |
| 47 97 98 98 | | | | 1 | 1 | \vdash | 一 | \vdash | 1- | ┰ | | | | 96 | ┢ | \vdash | - | | - | t |
| 48 98 98 | | | \vdash | | \vdash | T | \vdash | | \vdash | t^- | | | | | \vdash | \vdash | | | - | t |
| | | | | t | \vdash | t | t^- | | - | | | | | | | | | \vdash | | t |
| | | | | T | \vdash | \vdash | t | | \vdash | t^- | | 1 | | | \vdash | \vdash | | 1 | | t |
| 50 100 | | | T | T | 一 | T | T | t- | \vdash | ⇈ | Т | 1 | | | ┢ | | ऻ | | | t |

| Cla | Date | | | | | | | | | | |
|--|--|--------------|----------------|--|----------|---|----------|----------------|--------------|--------------|--|
| | | | | | | | | | | | |
| (a) | ina | | | | | | | | | | |
| Final | Original | | | | | | | | | | |
| | 0 | | | | | | | | | | |
| | 51 | | | | | | | | | _ | |
| | 52 | | | | | | | | | | |
| | 53 | \vdash | \vdash | | | | _ | _ | _ | _ | |
| - | 54 | | _ | - | | | | _ | | _ | |
| | 52 53 54 55 | _ | - | | | | | | | _ | |
| | 56 | | - | | | | - | | | | |
| | 57 | | - | | | | | | - | | |
| | 57 58 | - | _ | | | _ | - | _ | _ | | |
| | 59 | \vdash | | | | | - | _ | \neg | _ | |
| - | 60 | _ | | | | _ | - | | - | — | |
| - | 61 | | | - | | | | | | _ | |
| | 61 62 | - | | | | | | | | | |
| | 63 | | _ | | - | | | - | - | - | |
| | 63 64 | \vdash | \vdash | | | | | H | \vdash | | |
| | 65 | \vdash | | | | | - | \vdash | \vdash | | |
| | 65 66 | | - | - | | | - | - | - | | |
| - | 67 | - | - | | — | | - | - | - | - | |
| - | 68 | - | | - | _ | | | | | _ | |
| | 68 69 70 71 72 73 74 75 76 77 | <u> </u> | - | | _ | | | | | - | |
| | 70 | | H- | - | | _ | | | _ | | |
| | 70 | | - | - | | | | | | _ | |
| | 72 | - | - | <u> </u> | | | | | | | |
| | 73 | - | | - | | | - | - | <u> </u> | | |
| | 74 | - | - | - | | | | | - | | |
| | 75 | | | - | | - | | | | | |
| - | 76 | - | - | \vdash | _ | | | _ | - | _ | |
| | 77 | | | - | | _ | _ | - | _ | — | |
| _ | 70 | | - | _ | _ | | - | | - | _ | |
| <u> </u> | 70 | \vdash | - | - | | | | - | - | | |
| | 79 80 | - | | - | | | | _ | - | | |
| | 81 | <u> </u> | | _ | | | | - | - | | |
| - | 82 | <u> </u> | - | - | _ | _ | _ | _ | _ | — | |
| | 83 | | | | | | | | | — | |
| | 84 | | - | | _ | | | | | | |
| | 84 85 | | | - | | | \vdash | | | | |
| _ | 86 | - | - | | | | - | - | \vdash | _ | |
| | 87 | - | - | | | | | | - | | |
| — | 87 88 | | | - | \vdash | | | | | \vdash | |
| \vdash | 89 | - | — | - | | | - | | - | | |
| - | 90 | \vdash | | - | | | - | | | | |
| \vdash | 91 | \vdash | - | | \vdash | - | \vdash | | | | |
| \vdash | 92 | | ├ | - | - | - | | | - | | |
| \vdash | 93 | \vdash | | | \vdash | | \vdash | - | Ь— | | |
| - | 93 | \vdash | | - | | | - | - | <u> </u> | | |
| - | 95 | | | | | | - | <u> </u> | | | |
| - | 96 | | \vdash | | | - | | - | | | |
| - | 96 | \vdash | | | | - | | | | | |
| | | | - | | | | - | — | | - | |
| <u> </u> | 98 | \vdash | | | | - | <u> </u> | | | | |
| - | 99 | <u> </u> | | | - | | - | — | | | |

| Cli | aim | | | | [| Date | e | | | |
|----------|---|----------|----------|----------|----------------|------------|----------------|--------------|----------|-----------------|
| | | | | | | | | | | |
| Final | Original | | | | | | | | | |
| Ę | Orić | | | | | | | | | |
| | | | | | | | | | | |
| | 101 102 103 | | | | | _ | | | | |
| | 102 | | | | | | | | | |
| | 103 | | | | | | | | | |
| | 104 105 106 | | _ | _ | _ | | | | _ | \Box |
| | 105 | _ | | | | | | | | \Box |
| | 106 | | | | | | | | | Щ |
| | 107 | | | | | | | ! | _ | |
| | 107 108 109 110 111 | _ | | _ | _ | | | _ | _ | |
| | 109 | | | _ | _ | | | | | - |
| | 110 | | | _ | _ | _ | _ | | _ | |
| | 117 | | - | \vdash | - | _ | - | | <u> </u> | \dashv |
| | 112 | | \vdash | \vdash | | - | — | | <u> </u> | \vdash |
| | 113 | - | | | | - | | - | | - |
| | 114 | | | | | | _ | | - | |
| | 110 | | | - | - | | | - | - | \vdash |
| | 117 | | - | | - | - | | | - | |
| | 112 113 114 115 116 117 118 119 | | \vdash | ├ | - | - | \vdash | | | $\vdash \dashv$ |
| ├ | 110 | | - | - | ├- | - | | | | \vdash |
| | 120 | - | - | - | ├─ | - | | - | | |
| | 121 | - | - | - | | - | ┢ | | | |
| | 122 | | \vdash | | | - | | | \vdash | $\vdash \dashv$ |
| | 123 | | - | - | - | - | | | | \vdash |
| | 120 121 122 123 124 125 126 127 128 129 130 | - | - | - | _ | - | - | _ | | \dashv |
| | 125 | | \vdash | - | _ | - | - | - | | \vdash |
| | 126 | | H | T | - | \vdash | | | _ | |
| | 127 | | Н | \vdash | \vdash | \vdash | <u> </u> | \vdash | \vdash | _ |
| <u> </u> | 128 | | \vdash | \vdash | | \vdash | \vdash | _ | | \vdash |
| | 129 | | _ | | _ | _ | _ | | | $\neg \neg$ |
| | 130 | | | | | | | | | |
| | 131 | | | | | \vdash | | | | |
| | 132 | | | Τ | \vdash | Π | | \vdash | | |
| | 131 132 133 | | Г | Π | \Box | | | | | |
| | 134 | | Г | | Г | | | | | |
| | 135 | | | | | | | | | |
| | 134 135 136 | | | | | | L | L | | |
| | 137 138 | | | | | | | | | |
| | 138 | | | | | | | | | |
| | 139 | | L | | | | | | | |
| | 139 140 | | <u>_</u> | <u> </u> | _ | | <u> </u> | | _ | $oxed{oxed}$ |
| | 141 | | <u></u> | <u> </u> | <u> </u> | <u> </u> | | | | |
| | 142 | | _ | | <u> </u> | <u> </u> | | | | Ш |
| | 143 | <u> </u> | <u> </u> | | <u> </u> | <u> </u> | <u> _</u> | <u> </u> | <u> </u> | Ш |
| | 144 | <u> </u> | <u> </u> | | <u> </u> | | <u> </u> | <u> </u> | <u> </u> | Ш |
| | 145 | <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> | Ш |
| | 146 | | | <u> </u> | | <u> _</u> | | | <u> </u> | |
| | 147 | <u> </u> | <u> </u> | | <u> </u> | <u> </u> _ | | <u> </u> | <u> </u> | |
| ļ | 148 | | <u> </u> | <u> </u> | <u> </u> | - | | | <u> </u> | Ш |
| | 149 | <u> </u> | | <u> </u> | _ | <u> </u> _ | | | | \sqcup |
| L | 150 | L | <u></u> | <u></u> | Щ | <u> </u> | L | <u></u> | <u> </u> | لـــا |
| | | | | | | | | | | |